PALETTE-BASED HISTOGRAM MATCHING
WITH RECURSIVE HISTOGRAM VECTOR GENERATION

ABSTRACT OF THE DISCLOSURE

5

A histogram comparison process is provided that compares a histogram-vector of a first dataset to a corresponding histogram-vector of a second dataset. The histogram-vectors of the first and second datasets are formed from the histogram values of a select few of the histogram classes, the select few classes being the classes of the first dataset that contain the highest

10 frequency count. The second dataset is characterized using only the select few classes of the first dataset; data items with values that belong to other classes are ignored. A palette dataset is created, corresponding to the second dataset, wherein the data items in the third dataset correspond to indexes to the select classes of the first dataset, or null indexes for the ignored data items. The histograms corresponding to overlapping regions is determined recursively, based on

15 the third dataset. Given a histogram corresponding to a first region, the histogram of a second, overlapping, region is determined by merely incrementing the frequency count of the indexes of the elements that are in the second region, but not the first, and decrementing the frequency count of the indexes of the elements that are in the first region, but not the second.

20